



[Osteoporosis](#) is a bone disease that develops when bone mineral density and bone mass decreases, or when the quality or structure of bone changes. This can lead to a decrease in bone strength that can increase the risk of broken bones (fractures).

Osteoporosis is a major cause of fractures in women in postmenopause and in older men. These fractures can occur in any bone but are most common in bones of the hip, vertebrae in the spine, and wrist.

## How common is osteoporosis in men?

Because osteoporosis is more common in women than in men, it is often thought of as a women's disease. But some men, especially those age 65 and older, do develop osteoporosis. In addition, the number of fractures caused by fragile bones in men has increased in recent years.

A fracture after age 50 is an important signal that a person may have osteoporosis. Unfortunately, men are less likely than women to be evaluated for osteoporosis after a fracture. Men also are less likely to get osteoporosis treatment.

## How does bone mass change with age?

Bone is made up of living tissue that is constantly changing, with older bone being broken down and new bone formed in its place (remodeling). Almost all bone in adults is remodeled every 10 years. Bone mass is lost when there is an imbalance between bone breakdown and bone formation - more bone is broken down than is formed. That imbalance occurs with aging and other conditions.

Bone mass is gained during growth and typically peaks in one's 20s. Peak bone mass is generally higher in men than in women. And although both men and women lose bone mass with age, bone loss is typically slower in men than in women, in part because of the estrogen that women lose after menopause.

See [What Is Bone?](#) for more information on bone remodeling and the important functions.

## Do fragile bones lead to fractures in men?

Having [lower bone density](#) and bone strength is a major risk factor for fracture in both men and women, and fractures become more common with age. But the increase in fractures that happens with aging starts later in men than in women because men have greater peak bone mass to begin with, and bone loss is slower in men. As a result of this delay in men as well as women's longer lifespans, older men have fewer fractures due to osteoporosis. But men who have a major fracture (for instance, a hip fracture) are more likely to have complications and to die as a result than women.

## What are the risk factors for osteoporosis in men?

Men have some of the same risk factors for osteoporosis as women, including:

- Chronic diseases, such as diabetes or [rheumatoid arthritis](#).
- Regular use of certain medications, such as glucocorticoids.
- Parkinson's disease and other conditions that affect neurological function.
- Low levels of the sex hormones testosterone and estrogen.
- Unhealthy habits, such as smoking and drinking too much alcohol.
- Weak muscles.
- Being age 70 or older.

## How is osteoporosis diagnosed?

The most common test used to measure bone mineral density and diagnose osteoporosis is a central dual energy x-ray absorptiometry (DXA or DEXA). DXA uses a small amount of x-ray to measure how much calcium and other minerals are in a specific area of your bone. For more information on the tests used to diagnose osteoporosis, see [Bone Mineral Density Tests: What the Numbers Mean](#).

The U.S. Preventive Services Task Force recommends annual DXA testing in women by age 65. But the Task Force says that not enough evidence is available to recommend routine DXA testing in men.

## What is a T-score?

If you are age 50 or older, your bone mineral density test result will be a T-score. A T-score is the difference between your bone mineral density and the average bone mineral density of a healthy young adult. A T-score less than -2.5 is usually considered to indicate osteoporosis.

Your doctor might use the Fracture Risk Assessment Tool (FRAX) along with the T-score to estimate your risk for fracture. This score uses your age, sex, medical history, country, and other factors.

## What is a Z-score?

If you are younger than age 50, your bone mineral density test result will be a Z-score. The Z-score is the difference between your bone mineral density and the average bone mineral density for healthy people of your age, ethnicity, and sex.

See [Bone Mineral Density Tests: What the Numbers Mean](#) for more information the meanings of different T-scores and Z-scores.

## What treatments are available for osteoporosis?

Osteoporosis treatment strategies are the same in men and women:

- Proper nutrition.
- Lifestyle changes.
- [Exercise](#).
- Fall prevention to help [prevent fractures](#).
- Medications.

For details on these and other treatments, see [Osteoporosis](#).

## How can men and women prevent osteoporosis?

Weight-bearing exercise, especially if you start at a young age, is a great way to strengthen bones and to help prevent osteoporosis. Exercise also helps prevent falls that lead to fractures.

Other steps that may help prevent osteoporosis and fractures are:

- Eating a well-balanced diet rich in [calcium and vitamin D](#).
- Drinking alcohol in moderation.
- Quitting smoking, or not starting if you don't smoke.

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